CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 81-31

WASTE DISCHARGE REQUIREMENTS FOR:

IT CORPORATION CLASS I DISPOSAL SITE
BENICIA, SOLANO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. IT Corporation, hereinafter called the discharger, owns and operates a Class I disposal site located northeast of Benicia in Solano County. The Board previously adopted Waste Discharge Requirements, Order No. 74-81, on August 20, 1974, for this disposal site which was issued to the site's prior owners, J & J Disposal Inc.

2. The discharger currently discharges Group 1 wastes to a site owned by the discharger located about three miles northeasterly of Benicia in the southern half of T3N, R2W, MDB & M, as shown in Attachment A, which is incorporated herein and made part of this Order.

3. The site consists of approximately 106 acres containing forty one ponds used for the disposal of industrial and chemical wastes. The combined surface area of the waste ponds is approximately 36 acres with an approximate useable volume of 350 acre-feet (114 million gallons). There is also a final containment pond used to store stormwater from those parts of the site not used for waste disposal and also used to contain accidental spills and overflows from the waste ponds. Biodegradable wastes are applied to the soil in certain areas in the site for treatment. Soil from the treatment areas is then placed in an on-site landfill. Solid wastes are also disposed of in this landfill. A former solid waste landfill which was used in the past is currently being closed. Past practices also include disposing of drums of wastes at a specific location at this site. The map in Attachment B to this Order shows the locations of the waste ponds, bio-treatment areas, past and present landfills, drum disposal area, and stormwater containment pond.

4. The prior owners of this site submitted a Geologic and Soils Report, May 1974, a Master Plan, May 1974, and a Revised Master Plan, April 1975. The discharger submitted a water balance operations plan on December 8, 1980, for this site.

5. The site is underlain by marine sedimentary beds consisting primarily of impermeable, shaley, claystones, interbedded with thin, fine-grained sandstone and limestone lenses. The claystone weathers into a permeable zone ranging from a few inches to a few feet in thickness. This weathered zone grades upward into a clay topsoil. The only ground water found on the site is in the relatively shallow weathered zone. No evidence of geologically recent movements was noted along the minor faults on the site, although the general area of the site is seismically active. The site receives an annual average of approximately 14 inches of rainfall per year, while evaporation averages 71.0 inches per year.

6. This disposal site subsequent to modifications required to comply with this Order meet the criteria contained in the California Administrative Code, Title 23, Chapter 3, Subchapter 15, for classification as a Class 1 Disposal Site suitable to receive Group 1, Group 2, and Group 3 wastes.

7. Drainage from the disposal site is tributary to Goodyear Slough and Suisun Bay via an unnamed creek. Discharge from the stormwater retention pond is regulated by separate NPDES Permit.

8. The Board adopted a Water Quality Control Plan for the San Francisco Bay Basin in April 1975 and this Order implements the water quality objectives stated in that plan.

9. The beneficial uses of Suisun Bay are:

   a. Recreation
   b. Fish migration and habitat
   c. Habitat and resting for waterfowl and migratory birds
   d. Esthetic enjoyment
   e. Navigation
   f. Industrial cooling water

10. This Order authorizes the continued operation of a privately owned Class I disposal site and is therefore exempt from the California Environmental Quality Control Act pursuant to Section 15101, Title 14, California Administrtive Code.

11. Land within 1000 feet of the site is used for agriculture only. The nearest dwelling and the nearest major highway are about one mile from the site.

12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger shall comply with the following at its Benicia Class I Disposal Site:

A. Waste Discharge Prohibitions

1. The treatment or disposal of waste shall not cause pollution or a nuisance as defined in Section 13050(m) of the California Water Code.

2. The discharge of any waste from the disposal area to the surface or ground waters of the State is prohibited. Waste material and any water that has contacted waste material shall be contained in the designated disposal areas shown on Attachment B.

3. Waste material or any of its components shall not exist on the ground surface anywhere outside of the waste disposal areas.

B. Waste Disposal Specifications

1. The disposal area shall be proteced from any washout or erosion of wastes or covering material, or from any threat of inundation.

2. Exterior surfaces of the dikes within the disposal area shall be graded to promote lateral runoff of precipitation and to prevent ponding.

3. The exterior faces of dikes shall be protected from erosion and raveling to maintain the effectiveness of the barrier.

4. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

5. Minimum pond freeboards and pond capacities shall be maintained in accordance with the plan submitted by the discharger on December 8, 1980 (i.e. two feet in ponds 1, 2, 12, 13, 14, and P and six inches in ponds 1A, 3, 4, 4A, 5, 6, 6A, 6B, 6B-1, 6C, 7, 8, 8A, 8B, 8R, 9, 10, 10R, 11, 11A, 11R, 15, 16, 17, 18, 19, 19A, 19B, 19C, 19D, 20, 21, 22, 0, and Q), with the addition that freeboards in ponds 0 and Q shall also maintain a two foot freeboard until specification B.6 below is complied with.

6. All drainage ways downstream of waste disposal areas shall be protected by secondary containment structures or by failsafe primary waste containment structures to assure that downstream surface waters are not subject to contaimination by spills, overflows, or failure of waste containment structures.

7. A contingency plan acceptable to the Executive Officer shall be submitted indicating methods of containment and clean up of waste if there are failures of structures resulting from the maximum credible earthquake, dike failure due to other occurrences or excessive rainfall. The plan shall also address site operations in the event of a labor dispute.

8. When the freeboard in pond 2B is less than 15 feet the discharger shall discharge water if it is in compliance with the applicable NPDES Permit or otherwise treat or remove sufficient water to restore a minimum 15 foot freeboard.

C. Provisions

1. The discharger shall submit a report indicating compliance, or a plan and time schedule to assure compliance, with Specification B.6 with respect to ponds 12, 13, O, P, and Q as shown on Attachment B by July 1, 1981 and full compliance shall be achieved by October 1, 1981.

2. The discharger shall comply with Specification B.7 above by October 1, 1981 and shall update the report by October 1 annually.

3. The discharger shall submit a site closure plan to the Board by April 1, 1982. This plan shall conform to Sections 2553.1 and 2553.2 of the California Administrative Code, Title 23, Chapter 3, Subchapter 15. The closure plan shall be updated April 1 annually.

4. The discharger shall provide by April 1, 1982 assurances that monies are available in an amount estimated sufficient to ensure the closure and subsequent maintenance and monitoring of the disposal site in a manner that will not pose an adverse threat to the environment. This report shall be updated by April 1 annually.

5. The discharger shall comply with all portions of this Order except B.6 with respect to ponds 12, 13, O, P and Q and B.7 immediately upon adoption.

6. The discharger shall maintain a copy of this order at the site so as to be available at all times to site operating personnel.

7. The discharger shall maintain a legible record using a reporting form indicated by the Board of the volume and type of each Group 1 waste received at the site and the manner and location of disposal. The record shall be maintained for a period of not less than ten years, with the records to be forwarded to the Board if disposal operations cease.

8. The discharger shall file with this Board updates of its operation plan when substantial changes in operations are made and a letter indicating conformance with existing plans by October 1 annually. For the purpose of these requirements, this includes any proposed change in the boundaries, contours or ownership of the disposal area(s).

9. This Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.

10. The dischrger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program which may be directed by the Executive Officer.

11. The discharger shall file a report by October 1, 1981 evaluating the possibility and consequences of multiple waste pond failures due to a cascade effect whereby the failure of an upper waste pond could cause the failue of lower ponds. This report shall include cross-sectional drawings of all waste ponds indicating depths of excavations and heights of dikes.

12. The dicharger shall permit the Regional Board:

    (a) Entry upon premises on which waste is located or in which any required records are kept,

    (b) Access to copy any records required to be kept under terms and conditions of this Order,

    (c) Inspection of monitoring equipment or records, and

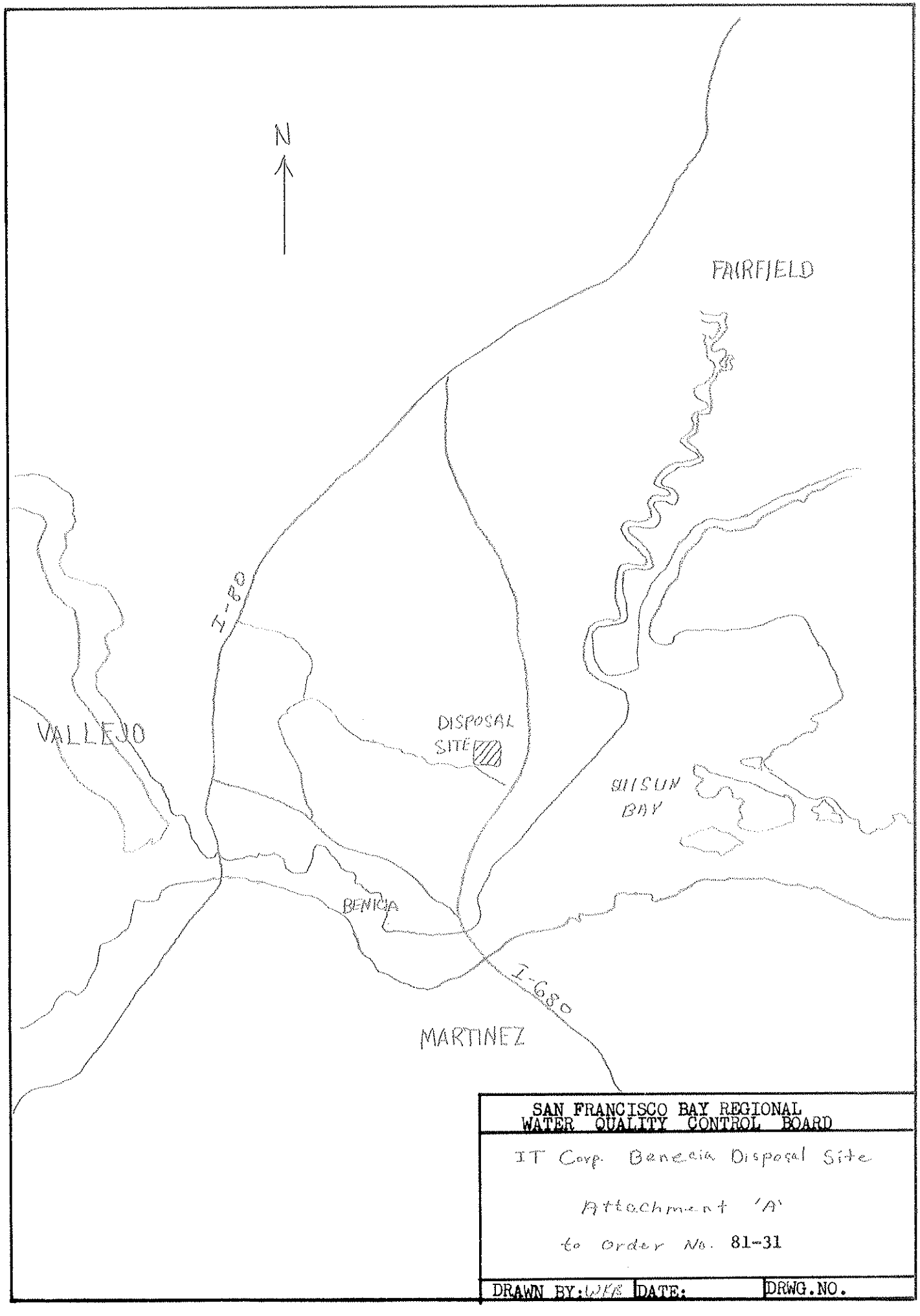
    (d) Sampling of any discharge.

13. This Board's Order No. 74-81 is hereby rescinded.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 20, 1981.

FRED H. DIERKER
Executive Officer

Attachments:
Maps



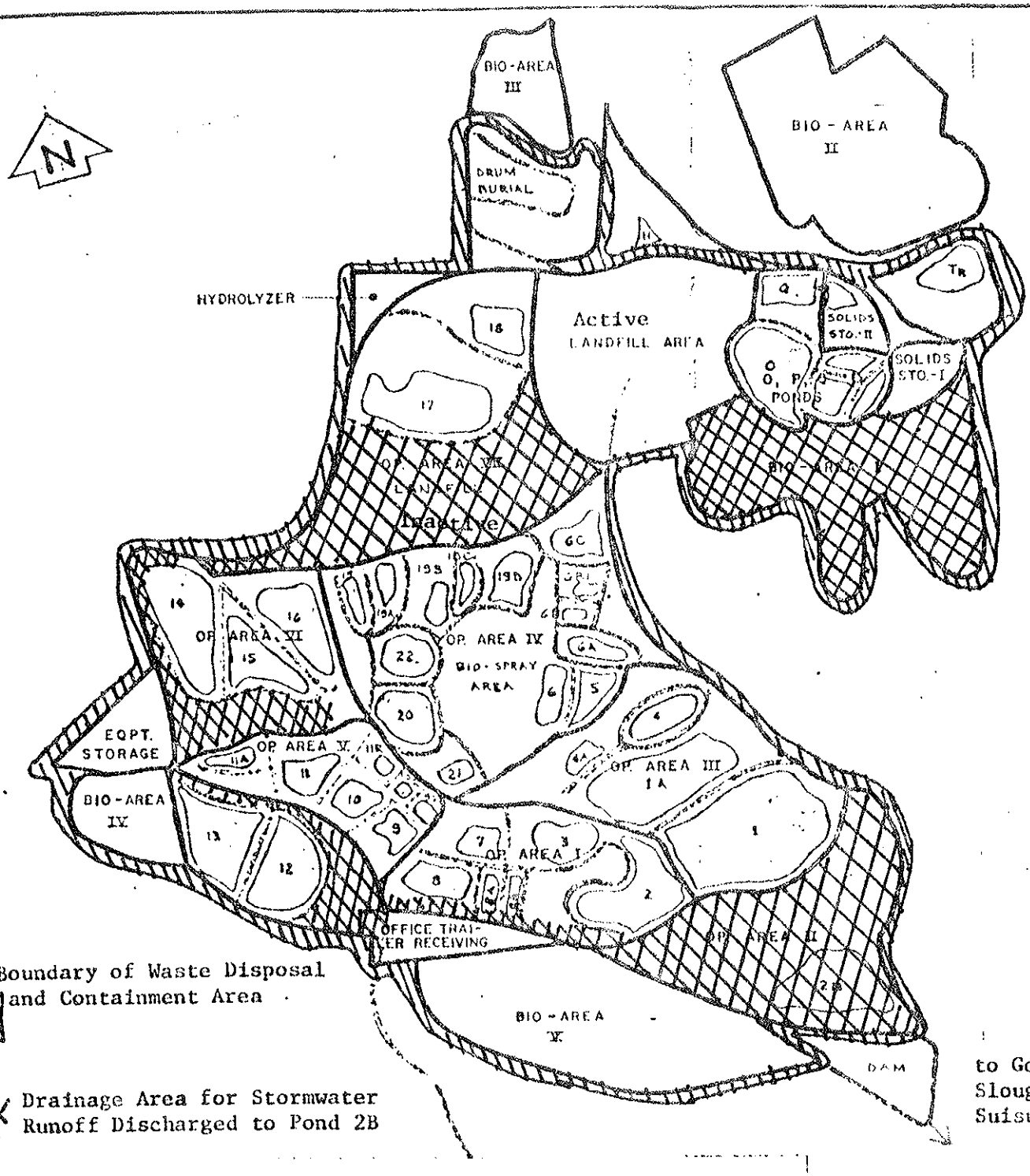
SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

IT Corp. Benecia Disposal Site

Attachment 'A'

to Order No. 81-31

DRAWN BY: WKE | DATE: | DRWG. NO.



Benicia Class 1 Disposal Site
Solano County

STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION		
IT Corp. Benicia Disposal Site Attachment "B" to Order No. 81-31		
DRAWN BY:	DATE:	DRWG NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

IT Corporation

Benicia Class I Disposal Site

Solano County

NPDES NO. CA N/A

ORDER NO. 81-31

CONSISTS OF

PART A

AND

PART B

PART B

DESCRIPTIONS OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING ANALYSIS, AND OBSERVATIONS

A. Influent

Station	Description
A	All waste hauled to the disposal site for deposit in the retention ponds, landfills, or bio-treatment areas.

B. Land Observation and Sampling Stations

Station	Description
F-1 thru F-'n'	Each waste disposal, retention, and/or evaporation pond. Also storm water retention ponds. To include the entire outside surface of each pond dike.
P-1 thru P-'n'	Stations to be located at approximately 100 foot intervals along the downstream side of the perimeter of the waste disposal site. Specific areas to be observed include the downstream sides of: 1) Dam 2B 2) Pond 12 and 13 dikes 3) Site boundary between ponds 13 and 17 4) Bio-areas I, II, III 5) Western dikes of ponds P and Q 6) Any part of a closed landfill draining off-site These areas are shown on the attached map.
L-1 thru L-'n'	Any area previously or currently used to dispose of solid or containerized wastes.
D-1 thru D-'n'	Standpipes located in the former drum disposal area.

C. Surface Waters

Station	Description
S-1 to S-'n'	All drainageways that carry storm water directly offsite, bypassing Pond 2B, the storm water collection pond. Samples shall be collected at the lowest point which is upstream of the confluence with any drainageway that originates offsite.

D. Monitoring Wells

Station	Description
B-1 B-2	Existing wells extending into the tile drain which runs along the toe of the safety dam which creates pond 2B. The wells shall be located at the low points in the tile drain.
C-1	An existing well located approximately 500 yards downstream of the storm water retention dam which defines pond 2B.
C-2	Well located in drainage way which contains the entrance road to the disposal site. The well shall be located upstream of the overthrust shear zone shown in a 1974 geologic study by Bryant-Park and Associates.
C-3	Well located in drainage way west of pond 13. The well shall be located upstream of the overthurst shear zone shown in a 1974 geologic study by Bryant-Park and Associates.
C-4	Well located in a northwestly tending drainage way originating between ponds 13 and 14. The well shall be located at the most accessible downstream point in the drainageway above the confluence of other drainage ways originating in areas not used for waste disposal.
C-5	Well located in a northerly tending drainage way originating between ponds 16 and 17. The well shall be located at the most accessible downstream point in the drainage way above the confluence of other drainage ways originating in areas not used for waste disposal.
C-6	Well located in an easterly tending drainage way below pond T. The well shall be located at the most accessible downstream point in the drainage way above the confluence of other drainage ways originating in areas not used for waste disposal.

Wells C-1 thru C-6 should be drilled down to consolidated bedrock and perforated for the maximum length possible. Wells should be installed at the lowest point feasible in the drainageway.

E. Observations

Station	Frequency	Observation
P-1 thru P-'n'	Weekly, October 1 to May 1, every other week, May 1 to October 1	Inspection to determine presence of leaching or seeps or any other indication of wastes leaving the disposal site.
L-1 thru L-'n'	Monthly	Observe any evidence of seeps or leaks
F-1 thru F-'n'	Monthly	Observe available pond freeboards and any evidence of dike seeps or leaks.

If any pond is observed to have less than the minimum freeboard specified in these requirements the Board shall be immediately notified by telephone. Notification shall include a proposal for achieving the minimum freeboard. A written report shall be sent to the Board within 24 hours.

D-1 thru D-'n'

Standpipes in the drum burial area (D stations) shall be checked annually in March to determine if any leachate is present. If leachate is found, then any cell which has leachate shall be monitored quarterly. If leachate levels increase for three consecutive quarters a leachate control plan shall be submitted to the Board within 60 days.

F. Sampling and Analysis

Station	Type of Sample and Frequency	Analyses
B-1, B-2, C-1 thru C-6	quarterly representative grab sample*	Depth to Groundwater Electrical conductivity pH Total Organic Carbon
	Semi-annual representative grab sample*	Nitrate Sulfides Arsenic Cadmium Chromium Copper Cyanide Silver Lead Mercury Nickel Zinc TICH
"S-1" to S-'n'	quarterly grab sample	pH TDS TOC Total Chromium Total Lead Phenolics

*Well samples shall be collected with a bailer. If there is less than ten feet of water in the well, the sample shall be taken from the center of the water column. If water depth is greater than ten feet, samples shall be taken at five foot intervals and analyzed seperately during first year of sampling, after that samples should be composited to form a grab sample representative of the well's contents.

G. Provisions

1. In addition to the reporting requirements in Part A, records shall be kept and reported for each month showing all wastes received at Station "A". Wastes shall be recorded by catagory: acids, bases, oil wastes, cyanides, etc.

2. Annual reports shall contain graphs of groundwater data collected during the previous three years.

3. The water balance, waste management plan submitted for this site in December 1980 shall be updated each month between October and May. The monthly reports should indicate pond volume available for waste disposal and the assumed rainfall return frequency being used that month.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and doucment compliance with waste discharge requirements established in Regional Board Order No. 81-31.

2. Does not include the following paragraphs of Part A: D.3, F.3.e.

3. The following sections of Part A shall be modified as follows:

   a. Paragraph F.3.b.: Remove "The report format will be prepared using the example shown in Appendix A."

   b. Paragraph F.3.d.: Remove "The report format will be prepared using the examples shown in Appendix B."

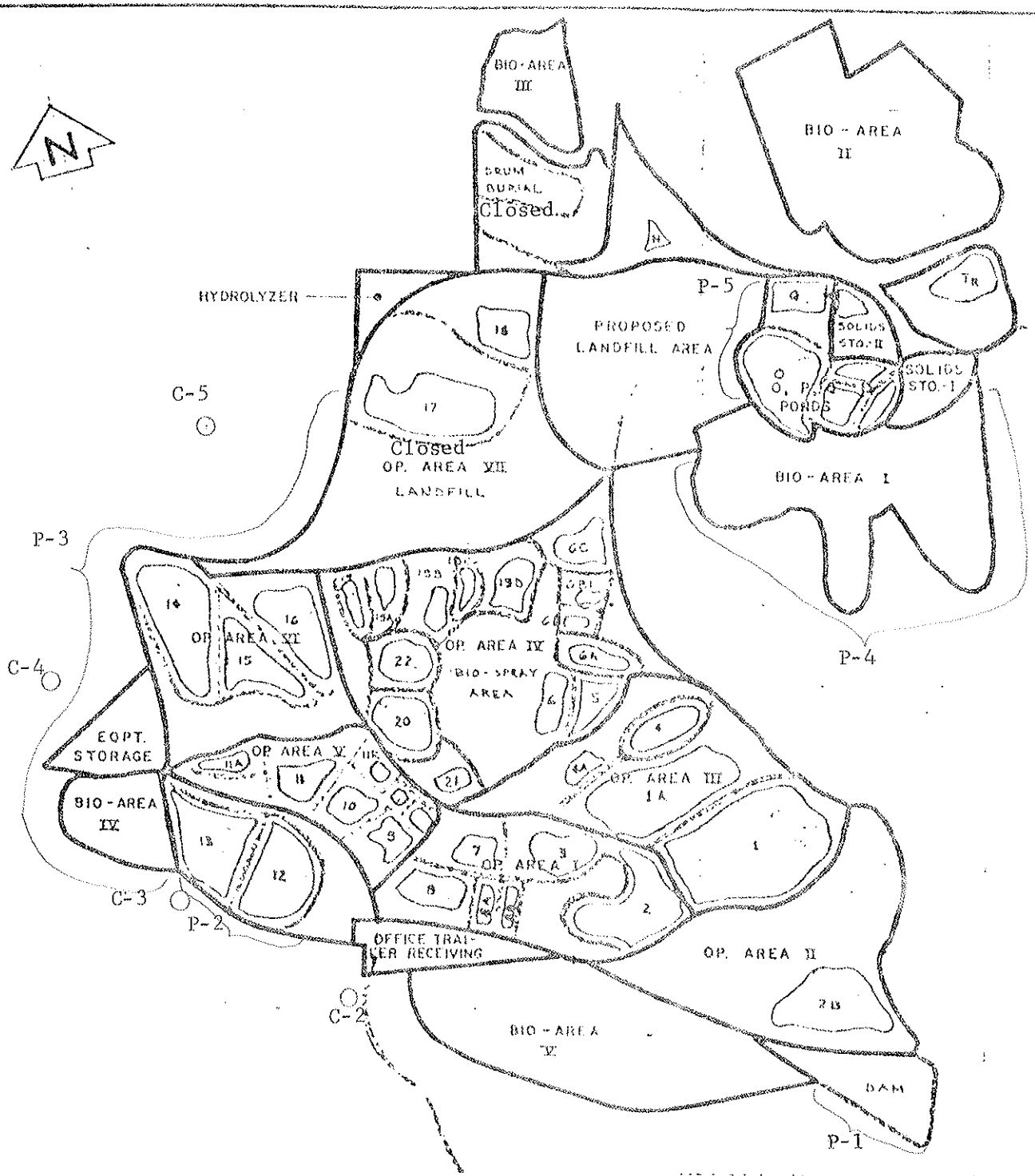
   c. Paragraph F.4: Remove the last sentence.

4. Is effective on the date shown below.

5. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

Effective Date _____

FRED H. DIERKER
Executive Officer



Benicia Class 1 Disposal Site
Solano County
Monitoring Well and P-Station Locations

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED
SELF-MONITORING PROGROM
FOR

IT Corporation
Benicia Class I Disposal Site
Solano County

ORDER NO. 81-31

CONSISTS OF

PART A

AND

PART B

Revised: April 1990

PART B

REVISIONS TO PART A, DESCRIPTIONS OF SAMPLING STATIONS, SCHEDULE OF SAMPLING ANALYSIS AND OBSERVATIONS

A. REVISIONS TO PART A:

PART A, Page 9, Item F4: Delete "Graphical" reporting requirements

B. SURFACE WATERS:

PT-1 thru PT-8 Surface Water Monitoring Locations

Locations are identified on Figure 1. Locations are selected in response to previous seepage from the presently solidified ponds 12 and 13. The analytical parameters to be monitored for are as follows:

Chloride	Nickel	Field Measurements
Selenium	Mercury	Temperature
Total Dissolved Solids	Silver	pH
Arsenic	Zinc	Specific Conductivity
Total Chromium		
Cadmium		
Copper		

Additional Locations

Locations PD-1 and PD-2 (formerly identified as PT-1 and PT-2 respectively) are identified on Figure 1. The analytical parameters to be monitored for are as follows:

Total Dissolved Solids	Temperature
Total Chromium	pH (Field Measurement)
Lead	

Sampling and reporting of analytical parameters are to be accomplished to coincide with and be reported with the quarterly ground water monitoring program. If sampling points are dry, they should be reported as such.

C. GROUND WATER MONITORING WELLS:

Figure 2 identifies the locations of monitoring wells at the facility. Tables 1 and 2 identify the sampling frequency and constituents to be monitored from monitoring wells. In Table 2, the semi-annual, annual and OPQ parameters are to be applied in addition to the quarterly parameters.

Ground water levels are to be measured in each well at the time of required sampling as identified in Table 1.

The purpose of the "Stand-by Status" monitoring wells is to maintain the identified wells in functioning condition such that they may be utilized if the situation warrants. Water level measurements are to be obtained from the stand-by status wells during the quarter that the corresponds to the annual sampling interval as identified in Table 1.

D. LAND OBSERVATION AND SAMPLING STATIONS

STATION	DESCRIPTION
P-1 thru P-5	Stations to be located at approximately 100-foot intervals along the downstream side of the perimeter of the waste disposal site. This includes any part of the closed landfill thats drains off-site.
L-1 thru L-4	Any area previously or currently used to dispose of solid or containerized waste
F-1 thru F-'n'	Each waste disposal, retention (including storm water), and/or evaporation ponds. To include the entire outside surface of each pond dike
D-1 thru D-7	Standpipes located in the drum disposal area

E. OBSERVATIONS:

STATION	FREQUENCY	OBSERVATION
P-1 thru P-5	Biweekly, 1 Oct. to 1 May; Montly 1 May to 1 Oct.	Inspection to determine presense of leaching or seeps, unusual vegetation
L-1 thru L-4	Monthly	Observation of seeps, unusual vegetation and odors
F-1 thru F-'n'	Monthly	Observation of seeps from dikes and available pond freeboards for non-solidified ponds or areas within solidified ponds where liquids have accumulated
D-1 thru D-7	Annually, in March	Determine depth of liquid in standpipes, Drum Burial Area 5.

Refer to Figure 3 for locations of observations.

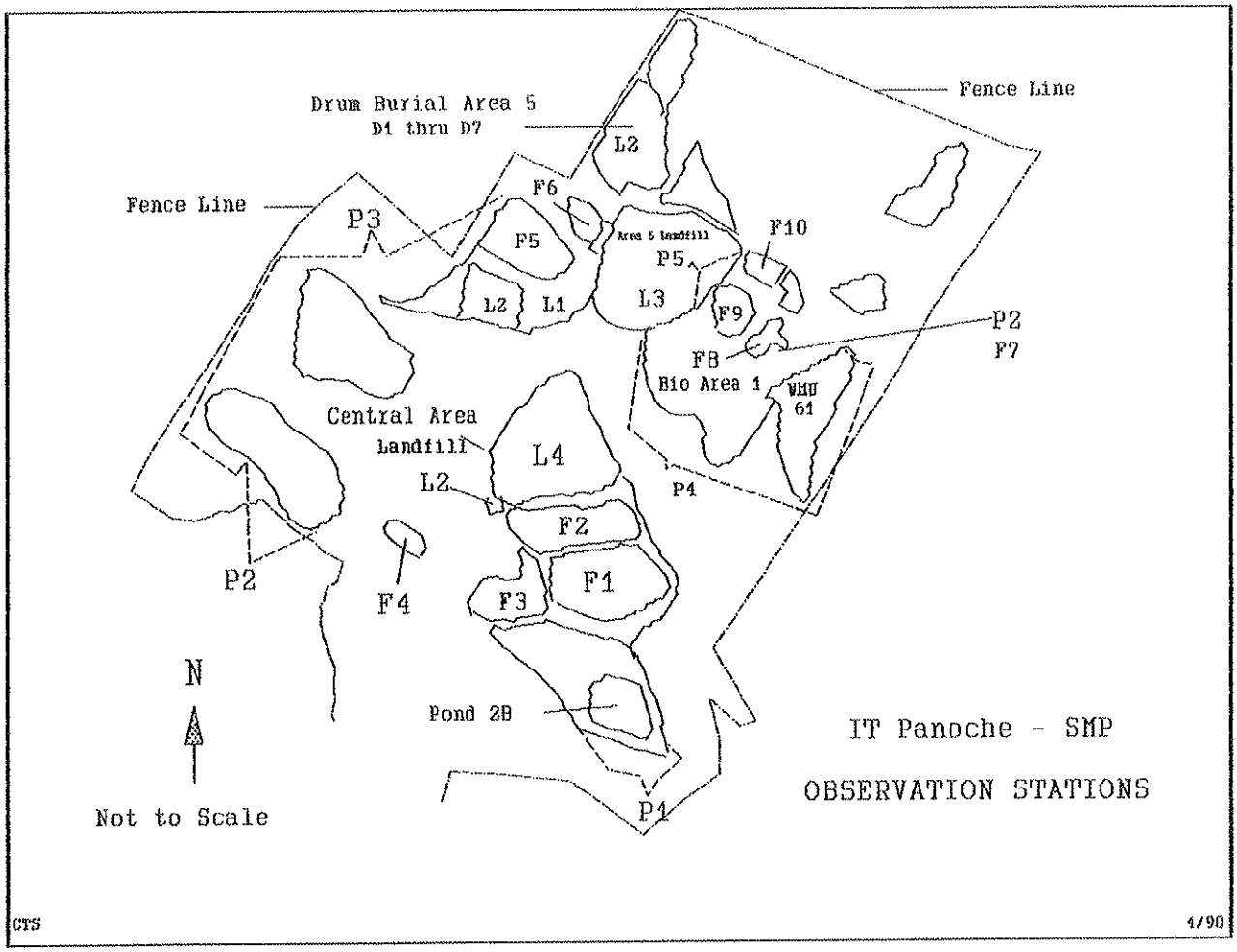


FIGURE 3

If any ponds or solidified ponds (which has accumulated fluids within or on the surface) are observed to have less than the minimum freeboard specified in these requirements, the Board shall be notified immediately by telephone. Notification shall include a proposal for achieving the minimum freeboard. A written report shall be sent to the Board within 24 hours of the observation.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program is as follows:

1. Developed in accordance with the procedures set forth in this Boards's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 81-31;

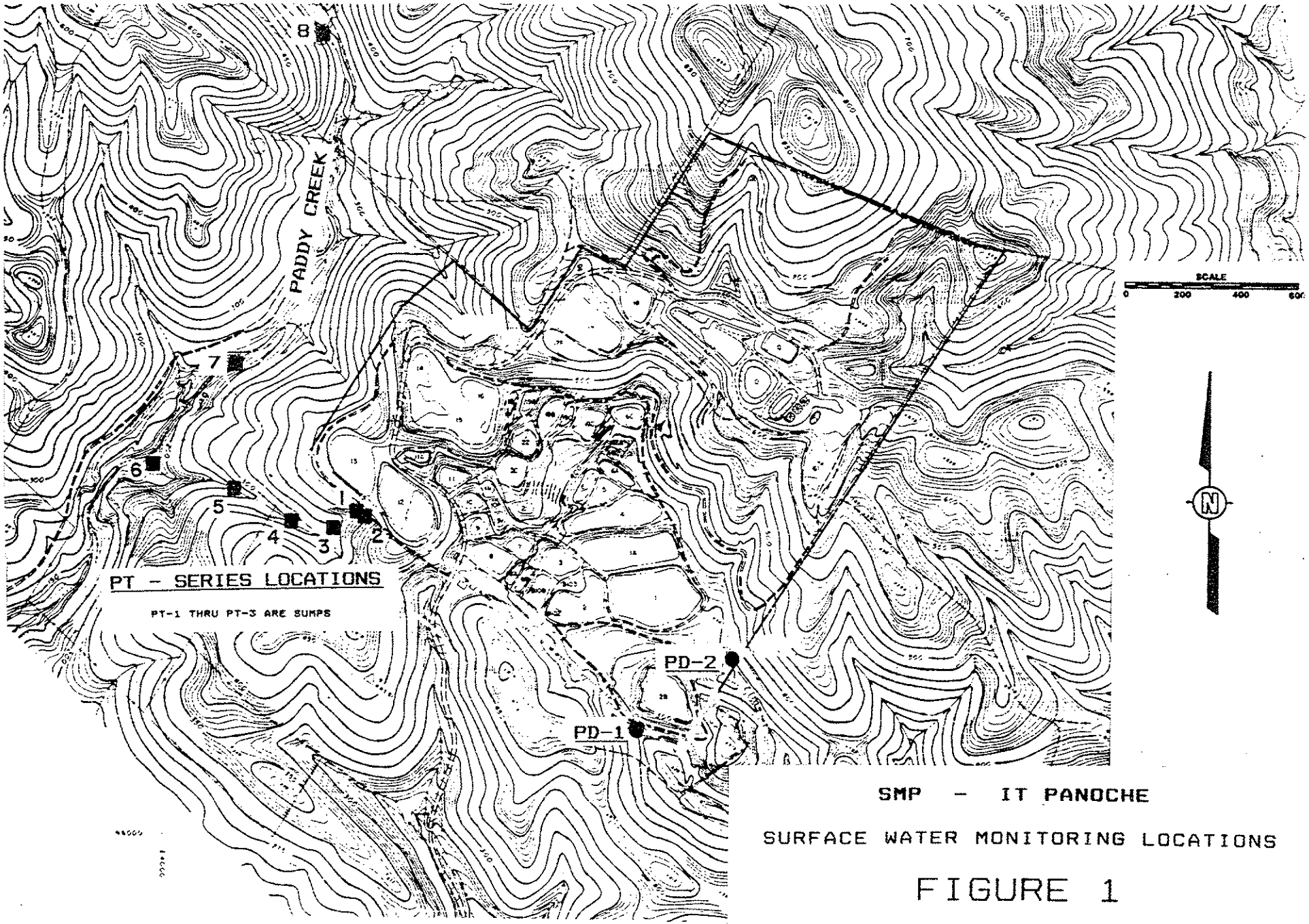
2. Effective on the date shown below; and

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer, or request from the discharger.

Steven R. Ritchie
Executive Officer

4/3/90
Date Ordered

Attachements: Figure 1: Surface Water Monitoring Locations
Figure 2: Monitoring Well Location Map
Table 1: Monitoring Frequency
Table 2: Ground Water Monitoring Parameters



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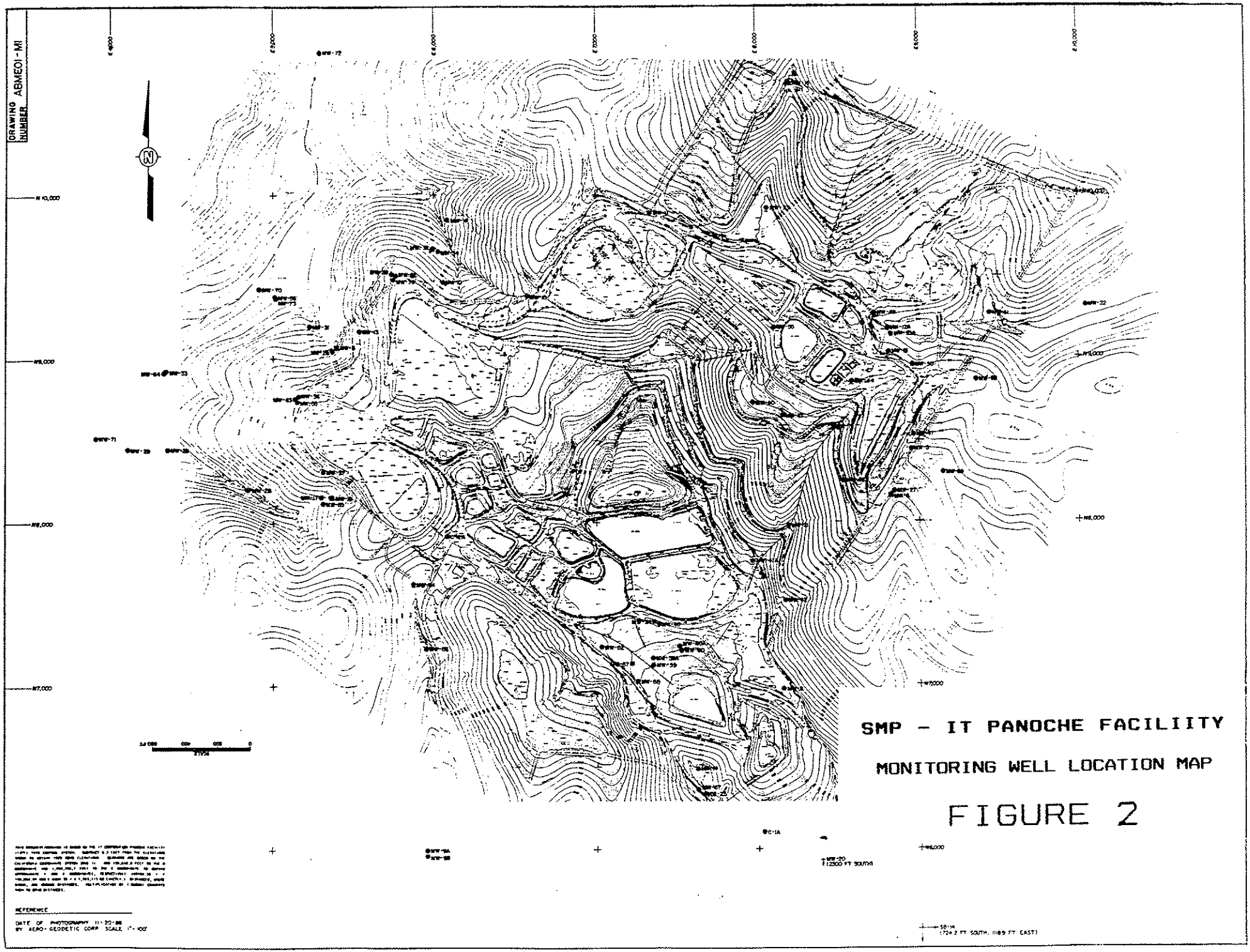
SURFACE WATER MONITORING LOCATIONS

FIGURE 1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MONITORING WELL LOCATION MAP
FIGURE 2

TABLE 1: Monitoring Frequency

Well Designation	QUARTERLY SAMPLING	ANNUAL SAMPLING	STAND-BY STATUS	OPQ WELLS
MW-002B		X		
MW-004	X			
MW-005		X		X
MW-007	X			X
MW-008			X	
MW-009A	X			
MW-009B			X	
MW-010	X			
MW-011	X			
MW-012A	X			X
MW-013	X			
MW-014	X			
MW-015	X			
MW-016	X			X
MW-017	X			
MW-020	X			X
MW-021			X	X
MW-022	X			X
MW-023	X			
MW-024	X			
MW-025	X			
MW-026	X			
MW-027	X			
MW-028			X	
MW-029			X	
MW-031		X		
MW-033	X			
MW-034			X	
MW-035			X	
MW-036	X			
MW-037	X			
MW-038			X	
MW-039	X			
MW-040			X	X
MW-041A		X		X
MW-042			X	X
MW-043	X			X
MW-044			X	X
mw-046	X			
MW-047	X			X
MW-048			X	X
MW-049	X			X
MW-050	X			X
MW-051			X	X

(Continued)

TABLE 1: Monitoring Frequency

(Continued)

Well Designation	QUARTERLY SAMPLING	ANNUAL SAMPLING	STAND-BY STATUS	OPQ WELLS
MW-052			X	
MW-053A	X			X
MW-054	X			
MW-055			X	X
MW-056			X	
MW-057			X	
MW-058			X	
MW-059			X	
MW-059A			X	
MW-060	X			
MW-060A	X			
MW-061		X		X
MW-062	X			
MW-063	X			
MW-064	X			
MW-065	X			
MW-066		X		
MW-067	X			
MW-068		X		X
MW-069	X			
MW-070	X			
MW-071	X			
MW-072	X			
MW-073			X	
C-1A	X			
C-2A	X			
SB-14			X	

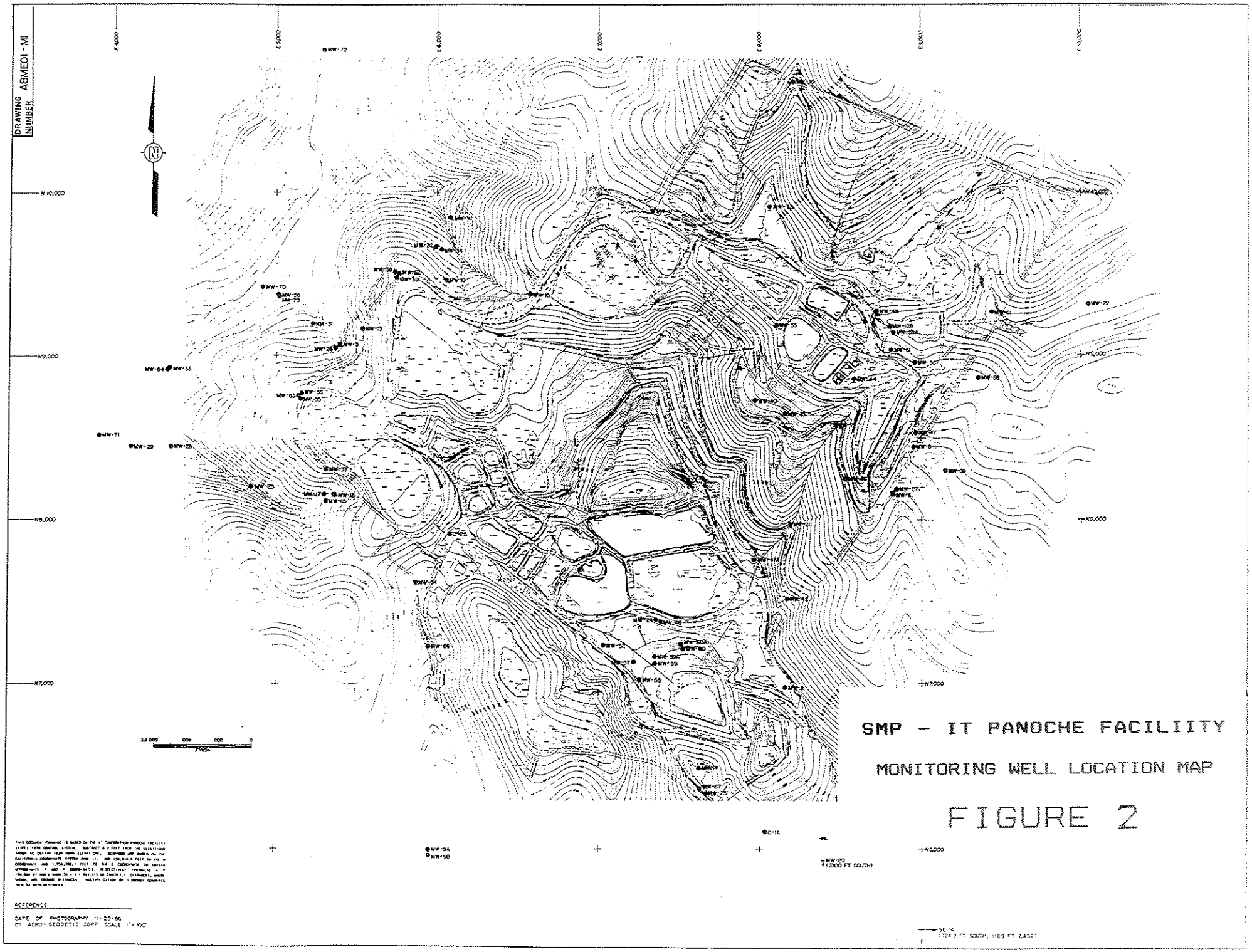
TABLE 2: Ground Water Monitoring Parameters

QUARTERLY PARAMETERS
Temperature (Field)
Turbidity (Field)
pH (Field)
Conductivity (Field)
Chloride
Nitrate
Total Dissolved Solids (TDS)
Arsenic
Barium
Cadmium
Calcium
Chromium (Total)
Copper
Lead
Mercury
Nickel
Potassium
Selenium
Silver
Zinc

Parameters For OPQ Wells ONLY (Table 1)
Niobium
Titanium
Vanadium

SEMI-ANNUAL PARAMETERS
Total Organic Carbon (TOC)
Total Organic Halogen (TOX)

ANNUAL PARAMETERS
Sulfate
Phenol
Iron
Manganese
Sodium



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MONITORING WELL LOCATION MAP

FIGURE 2